

**data  
collection  
limited**



## DATA COLLECTION LIMITED SURVEY SERVICES



# OVERVIEW: SURVEY SERVICES

## THE DCL ADVANTAGE

- » Leading-edge technology for accurate and comprehensive data for road maintenance prioritisation
- » Original manufacturers of the road survey technology
- » Unrivalled expertise to maximise capabilities and optimise system configuration
- » One stop shop solution with all required technical and operational experience
- » Pool of resources with offices in New Zealand and India

Data Collection Limited (DCL) is a New Zealand owned and registered company who perform highly technical highway surveys and manufacture ROMDAS equipment.

We have been manufacturing and providing advanced road survey equipment to clients for the past 30 years. From our origins in the early 1990s, we have a proven track record in the collection of highway and asset information, both in New Zealand and internationally.

DCL's Survey services specialises in providing innovative solutions for measuring and managing pavements. We invest in highly technical survey equipment that is designed to meet New Zealand and international standards.

Catering to the satisfaction of our clients, we provide data and information on assets, surface and sub-surface conditions. Our services can be applied to a wide spectrum of industries including roads, airports, ports and railways.

Our team has collective knowledge and technical skills with varied experience. We are dedicated to collect and report accurate, reliable pavement information which is critical to successfully prioritising budgets and maintaining a high standard of service.

## Our Expertise

We have a dedicated team offering technical expertise for two types of surveys:

### » Pavement Condition Survey

Information on the condition of the pavement surface and assets, visually and automatically

- » Pavement Surface Condition with video imagery
- » High speed survey with automatic pavement surface assessments
- » Automatic crack detection and mapping
- » GIS mapping
- » Roadside inventory and asset management
- » Road construction quality testing

### » Structural Testing

Providing sub-surface structural data

- » Falling Weight Deflectometer Testing to determine pavement strength and identify failures
- » Heavy Weight Deflectometer Testing; for thicker pavements, airports and ports



# OVERVIEW: OUR EXPERTISE

We are committed to provide accurate and reliable pavement information that is critical for efficient budget allocation and maintaining high quality infrastructure.

The current list of outputs includes the following, with new algorithms being regularly developed to refine and expand the list of these defects.

## SURVEY CAPABILITIES

<b>Profile Data</b>	Raw Longitudinal Road Profile	Raw Transverse Profile
<b>Roughness</b>	Wheel-path and Lane IRI (Quarter car)	NAASRA Count
<b>Rutting</b>	Rut Depth (Straight-Edge & Taut Wire Method)	Rut Cross Sectional Areas
	Rut Width	Shoving
	Ponding Depths	
<b>Macro Texture</b>	Mean Profile Depth (MPD)	Estimated Texture Depth (ETD)
	Sand Circle Diameter	Sand Patch Texture Depth (SPTD)
<b>Geometry</b>	Crossfall	Gradient
	Horizontal Radius of Curvature	
<b>GIS Data</b>	Lane Centreline	Road Centreline
<b>Video Imagery</b>	Right of Way	Kerb and Channel/Shoulder Focus
	Pavement Surface	
<b>Surface Defects</b>	Cracking (longitudinal, transverse, alligator)	Patches (maintenance and pothole)
	Ravelling/Scabbing	Bleeding/Flushing
	Shoving	Concrete Joints and Faulting
	Lane Width	Kerbs, Shoulders and Drop-Offs
	Man-made Objects (e.g. manhole covers)	Pavement Images
<b>Asset Inventory</b>	Lane Markings	Signs
	Street Furniture	
<b>Structural</b>	Deflection and Curvature	Structural Number (SNP)
	Layer Moduli	Remaining Life Analysis
	Load Transfer Analysis	Pavement Classification Number (PCN) Values

# OUR COMPANY

Data Collection Limited (DCL) was founded by Dr Chris Bennet in 1989, after his experience in transitioning countries. At the time, his focus was to develop low cost, robust equipment to predominantly collect data in these transitioning countries. He was passionate to help these countries to maintain their assets. Over the few decades, the product range has expanded and DCL now offers high-end modules such as the Laser Crack Measurement System (LCMS). LCMS collects data across the full width of the lane providing high accuracy data as close as 1mm intervals at traffic speeds.

In 2012, another surveying company was leaving the market. DCL realised there was a void in the surveying industry that needed to be filled and after bringing the right people on board; DCL Survey services was launched.

Starting with a small team and one survey vehicle, we were ready to collect data for our first contract with Dunedin City Council. Now based in Hamilton, our DCL Survey team has quadrupled in size and we have also expanded our fleet to include a 2<sup>nd</sup> LCMS survey unit, which was commissioned for our RATA contract just under 2 years ago.

From our early beginnings we have utilised high-end surveying equipment with the capability to offer more than what was typically required by the Council's at that time. This is possible as we also help improve ROMDAS survey equipment by testing their new developments and improving on the data collection and post processing software requirements. Working closely with our manufacturing team, the DCL survey team have the unique advantage to meet client needs with the equipment as well as rectify any problems in-house, quickly and with negligible impact on project deadlines.

## Mission Statement

***“Providers of innovative solutions for measuring and managing pavements”***

We aim to offer innovative data solutions for pavement surveys, leading clients to make better engineering decisions. We pride ourselves on having a unique capability to thinking outside the box to ensure the best solution for clients. Going forward, we strive to develop services which assist in the sustainability and reliability of road infrastructure. We want to be true partners to our clients and address their particular project requirements. Together, we envision our work to contribute to New Zealand's civil engineering growth ahead.

